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SARCOMA AND MULTIPLE MUCOUS POLYPI OF THE UTERUS,
IN A CHILD.

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So little is to be found in the text-books and current literature bearing on diseases of the sexual organs in female children, that I deem the following case worthy of a place in the records of unique cases :

In August, 1882, I was requested to see a little girl, whose mother furnished the following history:

About eight months previously, when three years old, a tumor appeared between the labia of the patient, and her mother took her to one of our most skilful surgeons, who, after examination, seized the tumor with forceps and snipped it off with scissors. Some two months afterwards another similar growth appeared, and the same surgeon, after administering ether, again operated on the child. On the recurrence of the growth I was asked to see the child. Her appearance denoted anxiety rather than suffering; she was pale and anemic, but able to play about with other children. Protruding from the vulva was a small growth very much resembling in shape and color a miniature liver; some bloody fluid was oozing from the vagina. The growth was not sensitive to the touch. I made an appointment to visit the patient the next day for the purpose of removing the tumor, but on reaching the house it was discovered that the protruding substance, which was about the size of a Lima bean, had come away of itself. Upon examination, it was found to be composed entirely of fibrin, entangling some blood corpuscles—in other words, it was a hardened blood-clot. A few days later, a growth differing in color appeared, but the weather being very warm and desiring to watch the progress of the tumor, I advised the mother to wait until cooler weather set in before submitting the child to any operative treatment. She was placed upon tonic and supporting treatment until October 4th; in the mean time, however, passing several pieces similar to that first described, and also having the same bloody fluid escaping from the vagina. On the date last mentioned, I proceeded to remove the excrescence, aided by Dr. E. C. Meriam and Mr. J. J. Darby, medical student. The patient being etherized, the tumor was seized with a dressing forceps, and on making slight traction, its attachment yielded, and the mass came away. It was about the size of a chestnut,



and on examination showed a distinct pedicle. Surprised at the facility with which the operation terminated, I determined to make further exploration while the patient was unconscious. On separating the labia, another mass was found to be filling up the orifice of the vagina. This I likewise seized, and it came away as the first had done. Still another and another were removed, until no more continued to appear. The dressing forceps were now carefully passed into the vagina, and on separating the blades another growth came into view, which was removed by the exercise of very little force. Continuing in this manner, a dozen or more polypi, resembling the ordinary mucous polypus of the nasal cavities, were torn away, very little bleeding resulting from the operation. I now oiled the little finger of my right hand and gently passed it into the vagina, where it at once came in contact with a mass composed of polypi like those already removed. The upper portion of the vagina was filled with them. With the exercise of gentle force, I was enabled to detach a goodly number, and on withdrawing the finger many of them were expelled with a gush. Some, however, were too large to pass, and these I seized with forceps and removed. The manœuvre of introducing the little finger, detaching the masses, and removing them was gone through with several times, some of the growths being as large as walnuts, but the most of them were the size of peas. Finally it became impossible to reach any more of the growths with the little finger, and on trial I found that the index finger could be passed with facility. By making counter-pressure, I was enabled to determine that the cavity of the uterus was distended by the same kind of growths as have already been described. Some were found pendent from the margin of the cervix; others grew from the cervical canal, and others still had their attachment within the cavity of the uterus. These I continued to remove until only a few very small ones, feeling more like villousities, were to be felt, when I concluded to desist from further efforts. The hand pressed over the uterus enabled me to determine by the finger in that viscus that the uterine walls were immensely hypertrophied. At the same time, an enlargement of considerable size was to be felt to the left of the uterus, but I did not feel justified in pursuing the investigation further just then, as the little patient had been under the influence of ether as long as it was deemed prudent to permit her to remain. She lost very little blood during the operation, and before the day was over seemed to have recovered entirely from the shock of the operation. The growths removed weighed half a pound, and numbered several hundred, the majority of them being as large as Lima beans. Nearly all of them had a pedicle, but occasionally a bunch could be found containing from four to six, which seemed to proceed from a common stalk or broad piece of tissue.

It should have been stated before that, on the morning I operated on this child, the mother sent for me in great alarm to call my attention to an abdominal tumor situated in the hypogastric region. This had not been manifest on palpation at any

previous time to either the parents or myself, although I must say but few examinations of the abdomen had been made by me, my attention having been entirely directed to the excrescence protruding from the vagina. Nor was any tumor noticed by either of several physicians who had visited the child previous to my connection with the case.

After removing the mass of polypi, as above stated, the abdominal tumor had sensibly diminished in size, and for a few days there was a bloody discharge, followed by one purulent in character. So little did the child suffer from the operation that she was able to go out walking a few days thereafter. The specimens removed from the child were presented to the Medical Society of the District of Columbia on the evening after their removal, and having been referred to the Committee on Microscopy, the following report was made after examination:

“NOVEMBER 1st, 1882.

“The specimen submitted by Dr. T. C. Smith, which was removed from the genital canal of a girl four years old, presents to the naked eye the following appearances: A multitude of soft, pale-yellowish masses, varying from the size of a pea to that of a walnut, some spherical, others pear-shaped, and others still irregular. On section, most of them were white, and a few had small cysts with granular contents; in some, however, the white gradually merged into a red color.

“On microscopical examination, these growths were seen to be covered with stratified epithelium; the peripherical portion of the growth shows a multitude of small round cells (leucocytes?), but scattered, or collected in small groups. The intercellular substance was a soft connective tissue, resembling that of mucous polypi in general. No glands were present.” The benignity of these growths is rendered manifest by the report of the microscopists, but the extrauterine growths referred to rendered the presence of malignant disease more than probable.

As stated above, the child was able to go out of doors a few days after the operation. No further growths appeared at the vulva, but within a short time it was discovered that the abdominal tumor was rapidly increasing in size, and finally reached the ensiform cartilage. I no longer entertained doubts as to its malignancy, and informed the parents of the child that no hope of recovery was to be entertained. About two weeks after the removal of the intrauterine growths, edema of the lower extremities set in. The urine diminished in quantity, and contained considerable albumen. Dyspnea first appeared one week later, and soon became so severe that the little sufferer could only breathe when resting upon her hands and knees. This continued a week, when death occurred from exhaustion, November 6th, 1882, thirty-three days after the operation.

The parents consented to an autopsy, which I made a few hours after death.

On opening the peritoneal cavity, a large quantity of ascitic fluid escaped. A large tumor of purplish color was now seen to

distend the abdomen, and which, on examination, proved to be the uterus. On either side was a large growth, larger than an egg, united to the uterus by slight adhesions. The uterus was firmly held by adhesions posteriorly, and anteriorly was attached to the bladder in its lower portion only. Parts of the vagina and bladder were removed along with the uterus. The specimen was exhibited to the Medical Society, and the foregoing history given. The following description of the specimen was prepared by Dr. D. S. Lamb, and read to the Society at the same time:

"A portion of the greater omentum: the free margin is contracted and thickened, and on section is firm and white, as if a new growth. Spleen, normal; both kidneys presented some dilatation of the pelves; the right kidney also presented numerous pin-head-sized metastatic purulent foci, some isolated, others in groups, with a brownish-colored intermediate tissue between the individual purulent points of the groups; these points were, many of them, softened to a liquid. All of them projected slightly from the subcapsular surface; some of the growths involved nearly the entire thickness of the cortex.

"The base of the bladder was occupied by a flattened, nodulated, firm growth.

"The uterus measured four and one-half inches in length, and three and one-half inches in breadth at the fundus. The anterior wall of the body was three-quarters of an inch in thickness and the posterior wall one and three-quarter inches. The cavity measured four inches in length and one inch in *circumference*. The walls were firm, somewhat elastic, and apparently homogeneous in structure; no cysts. The surface of the cavity presented irregular nodulations and a few small polypoid growths; the cavity itself contained a little glairy mucus.

"The ovaries presented each a few small aqueous cysts.

"The vagina measured about four inches in length, and was much distended. The walls were much thickened by a tissue resembling that of the uterine walls. The mucous surface presented flattened nodular elevations of various breadths and polypoid growths of various sizes.

"Appended to the uterus and vagina were many subperitoneal growths of a roundish shape; some pedunculated, others sessile; the size varied from that of a pea to as much as three inches in diameter; their structure was similar to that of the uterine and vaginal walls. Some of them presented patches of internal hemorrhage."

This specimen was referred to the Committee on Microscopy, who reported that it was a "round-cell sarcoma." Four months after its removal, the uterus and appendages weighed thirty-one ounces.

Reference may properly be called to a few points in connection with this case.

First.—The existence of malignant disease of the uterus in

a child three years of age. While reference is occasionally found in text-books to the fact that *cancer* has been observed in the uterus of children, I have been unable to find a case recorded in full of such an occurrence, and the specimen obtained from this case is the only one of the kind to be found in the Army Medical Museum in this city, as I am informed by Dr. Lamb. It is true that sarcoma has been occasionally observed in children. Thus Dr. T. G. Thomas closes a paper read before one of the societies (*AMER. JOURN. Obst.*, 1874-5, Vol. vii., p. 48) with the relation of a case of sarcoma of the labium in a young child, and in the *Medical Record* of March 31st, 1883, is found mention of a case by Dr. Arkövy of congenital sarcoma of the jaw. Cancer of the ovary, too, has been not unfrequently found in children, but the occurrence of cancer in the uterus is exceedingly rare.

Second.—The association of such a multitude of polypi of a harmless character with a malignant disease in the same organ, has not, so far as my investigations go, its counterpart in medical literature. Even in adults the presence of multiple polypi is usually considered sufficiently rare to justify a place in the medical records of the day, but the union of malignancy and benignity is almost paradoxical. In the few cases I have been able to find where polypi were found in abundance, and malignant disease at the same time existed in the same organ, the polypi have partaken of the nature of the more serious disease. For instance, I find in the Transactions of the Obstetrical Society of London for 1868 (Vol. x., p. 224), the following notes: "Mr. Hereford gave the history and exhibited the specimens of the following case:

A child, aged ten months, was brought to the East London Hospital for Children, having some large, villous-looking growths attached apparently to the vulva. Opinion was divided as to whether they were syphilitic or cancerous.

On further examination, it was found that these growths extended inward and lined a large sac, which represented an enormously enlarged and dilated vagina.

Death shortly afterward took place, and at the post-mortem examination it was disclosed that the rectum, bladder, and urethra were normally situated.

The uterus (to which were attached healthy ovaries and Fallopian tubes) opened by its os uteri into the upper wall of the cyst.

The microscopic examination proved the growths to be medullary in their character.

Their first appearance could not be traced beyond, at most, four months.

There was no history of cancer ascertainable in the family.

The coexistence of malignant disease with an evident malformation of the vagina, is quite unique."

I find in the *Lancet* for 1877, Vol. i., p. 5, by Mr. John Clay, of Birmingham, under the title of "Clinical Remarks on Diffuse Sarcoma of the Uterus," a description which tallies very closely with that given of my case. After giving the history of seven cases which had been under his treatment in Queen's Hospital, Birmingham, he continues:

"The objective signs furnished by the patients were tolerably uniform. On palpation, the uterus was found to be enlarged. Per vaginam, the os uteri was soft and thickened, its condition otherwise being normal, but invariably patulous, readily admitting the finger. The cavity of the uterus was enlarged, permitting the finger to move easily to explore the uterine cavity. One part of the uterus was felt to be thickened—cushioned as it were; and this part was rough to the touch and largely studded with prominent growths, varying in size from a pea to a hazel-nut. In other parts of the uterus smooth spaces were discernible. In one case the irregularity of surface appeared to be general. The space occupied by these growths was about half of the uterus, and was generally on the posterior surface." Bladder complications were absent in five of the seven cases.

He refers to the treatment as follows:

"The treatment pursued in all the cases consisted in carefully removing the growths with a Sims' curette. The quantity removed varied from a dessertspoonful to two-thirds of a teacupful. The growths always exhibited the same grayish-white, vascular, brain-like appearance, and varied from the size of a pea to one somewhat larger than a horse-bean." Removal by the curette was repeated several times in some of the cases.

Referring to the diagnosis of these growths, he continues (p. 48):

"If we compare these growths with those removed in the case of endometritis, the latter are seen to be intensely hyperemic, and under the microscope they show an increase of all the elements of the uterine mucous membrane—dilated follicles, with abundant cell infiltration of the connective tissue—while in diffuse sarcoma the growths are of a grayish-white color, very vascular, and presenting a soft, brain-like consistence, and are capable of being easily crushed between the fingers."

All of Mr. Clay's patients were adults, and six of them had borne children. I fail to find reference to similar cases occur-

ring in the practice of any other physician. Emmet does not speak of such cases, and, as his work embodies nearly everything that is new in gynecology, I infer that the paper of Mr. Clay has escaped his observation.

Third.—The absence of vesical symptoms, notwithstanding the invasion of the base of the bladder by the growth, as described by Dr. Lamb, is worthy of note. Still in Mr. Clay's cases the bladder was affected only twice.

Fourth.—The failure to discover an abdominal tumor in my little patient calls for more than a passing note. As stated above, the tumor was not discovered until the morning of the day on which the operation for removal of the growth protruding from the vagina was to be performed, and was then discovered by the mother. The only explanation I can give is that the growth was mainly below the symphysis pubis, and retracted into the hollow of the sacrum, and so remained until it had attained such a magnitude as to enforce its ascent into the abdominal cavity. In an adult this would in all probability have been discovered early, as vaginal examination would have been instituted early after the first appearance of a growth at the vulvar orifice, but the patient being a child, this course was not followed.

Fifth.—The rapid advance of the abdominal tumor after the removal of the intra-uterine polypi. This, however, is many times observed after partial removal of *malignant* growths.

Sixth.—The facility with which the vaginal examination was made is worthy of note. It rarely happens that a physician is called upon to pass his finger into the vagina of a girl of such tender years, and many of our oldest practitioners have assured me that they have never done so. In this case, the growth of the polypi and consequent dilatation of the vagina and its orifice made the examination exceptionally easy. Of course, I do not mean to recommend the frequent examination of children by this method, but only mention the circumstance to show that in suitable cases physicians may resort to such procedures without fear of doing injury to the little patients whose afflictions may seem to demand them.

A few words and quotations in relation to sarcoma of the uterus will close what I have to say in this paper.

As to the frequency of the disease and the social condition of the patients, Dr. Emmet, in the last edition of his "Gynecology" (p. 509), says: "It is of rare occurrence, and is frequently mistaken for epithelioma. I have seen but seven cases, all, with one exception, occurring in women who had never borne children, and in five the disease developed in connection with supposed fibroid growths. All of these women had been under my care, and I had detected the existence of the fibrous growths long previous to the appearance of the sarcoma." By a singular coincidence, Mr. Clay had seven cases, and the social condition of the patients was exactly reversed; thus six of the patients had borne children (from three to eight), while only one was a virgin. Emmet refers to this point again (p. 85), where he says: "This disease is rarely found in the female who has borne children; at least I have never met with it except in the unmarried and sterile." He had only one out of seven who had borne a child.

Dr. Emmet, speaking of the time of life most favorable to the growth of sarcomatous tumors, says (p. 85): "Sarcoma may occur at any time during the active sexual life of a female." I have found no reference anywhere to the growth of such a tumor in a child.

The same author says of sarcoma (p. 495): "It originates in the connective tissue of the uterus; it has its seat generally near the fundus, and is seldom, if ever, found below the internal os." In this statement Dr. Emmet is substantially in accord with other authorities.

The absence of pain in my patient may be referred to, inasmuch as some have claimed this symptom to be characteristic of sarcoma in the earlier stages of the disease. Dr. D. H. Hayden (*Bost. Med. and Surg. Jour.*, 1874, Vol. xc., p. 593), after giving the history of a case of sarcoma of the uterus, gives the following as one of the clinical differences between that disease and carcinoma:

"In *sarcoma* there is very great pain from the outset. This does not generally occur in carcinoma until the neighboring organs are involved." This dictum will have to be modified.